Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ P: \_\_\_\_\_\_\_\_\_

Diagonal Distance + Pythagorean Theorem

**Geometry**

Complete the following problems in your graph paper notebook. Plot all the points in the coordinate plane in order to calculate the distance.

1. What is the distance between the points at in the standard coordinate plane?
2. Find the length of a diagonal (from R to C) in rectangle RECT having coordinates (Hint: Draw the picture first!)
3. Graph and find the distance for the following (round to the nearest tenth):
4. A(-4, 2) and B(2, 7)
5. P(7, 3) and Q(2, 1)

What line segment is the longest? What line segment is the shortest? What is the difference in the lengths of the two segments?

1. Eyo, Avia and Alan are playing in a soccer game against Pritzker College Prep. Mio is at and has the ball. Avia is at and Alan is at . The goal is located at
   1. How far does the ball travel if Eyo shoots it directly at the goal?
   2. How far does the ball travel if Eyo passes the ball to Avia and Avia shoots at the goal?
   3. How far does the ball travel if Eyo passes it to Avia, Avia passes it to Alan and Alan shoots the ball?

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ P: \_\_\_\_\_\_\_\_\_

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